

**Listing of Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 5     1. (Currently amended) An X-ray microscope which includes a device for generating X-rays, a lens for forming an image of an object, and an X-ray detector for detecting an image of the object, the which device for generating X-rays is provided with:
- 10    • means for producing a fluid jet having a curvilinear cross-section,  
      • means for forming a focused radiation beam whose focus is situated on the fluid jet,  
      said focused radiation beam comprising a beam of electrically  
15    charged particles.
- 20    2. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the beam of electrically charged particles comprises an electron beam.
- 25    3. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the cross-section of the fluid jet in the direction of the focused beam is smaller than that in the direction transversely thereof.
4. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the fluid jet consists essentially of liquid oxygen or nitrogen.

5. (Previously presented) An X-ray microscope as claimed in  
Claim 1, wherein the means for producing a focused beam of  
electrically charged particles comprises an electron gun for a  
cathode ray tube, the X-ray microscope including a condenser  
lens disposed between the fluid jet and an object to be imaged  
by means of the X-ray microscope.

10 6. (Currently amended) An electron microscope comprising means  
for producing a focused electron beam ~~and including,~~ a device  
for generating X-rays, a lens for forming an image of an  
object, and a detector for detecting the image of the object,  
said device for generating X-rays including:  
15     • means for producing a fluid jet having a curvilinear  
          cross-section, and  
       • means for directing the focus of the electron beam onto  
          the fluid jet.

20 7. (Previously presented) An electron microscope as claimed in  
Claim 6 and including an X-ray microscope, said device for  
generating X-rays acting as the X-ray source for the X-ray  
microscope.

25 8. (Previously presented) An electron microscope as claimed in  
Claim 6, the electron microscope being a scanning electron  
microscope.